

### **REMARKS**

Applicants acknowledge with appreciation the withdrawal of the rejection of claim 20 under 35 U.S.C. § 112, second paragraph, and the withdrawal of the objection of claim 34.

Claims 17, 19, 22, 25-27 and 35 stand rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent document 5,439,647 to Saini; claims 18, 20, 21, 23, 24, 28 and 31-34 stand rejected under 35 U.S.C. § 103(a) for obviousness from the teachings of the Saini document in view of U.S. Patent document 2002/0135780 to Budach et al.; and claims 28-30 and 36 stand rejected under 35 U.S.C. § 103(a) for obviousness from the teachings of the Saini document in view of U.S. Patent document 6,465,241 to Haronian et al. In response to the rejection thereof, claim 17 has been amended to further define the invention. After the foregoing amendment, claims 17-36 are pending in the application.

Herein, independent claim 17 has been amended to generally recite, among other things, that an optical waveguide defines a single light path along which multiple detection fields and multiple radiation receivers are disposed, wherein each detection field has one radiation receiver associated therewith and each radiation receiver is operative for detecting only the luminescence radiation sent out by the detection field associated therewith.

In the detailed rejection of claims 17, 19, 22, 25-27 and 35, the Examiner specifically refers to Figs. 1A, 1C, 2A and 3A-3C of the Saini patent.

Figs. 1A, 1C and 2A of the Saini patent disclose waveguides, each of which includes a reference arm 22 and a sensing arm 24, 25 and 27, respectively. The Saini patent discloses that each sensing arm 24, 25 and 27 has sensing chemistry associated therewith, e.g., sensing arm 25 is formed of sensing chemistry. However, there is no disclosure, teaching or suggestion in the Saini patent of each instance of reference arm 22 having any sensing chemistry associated therewith. Thus, light passing through each reference arm 22 in Figs. 1A, 1C and 2A of the Saini patent that strikes the corresponding detector 16 has not been influenced by any sensing chemistry. It is only the light that passes through each sensing arm 24, 25 or 27 that is influenced by the sensing chemistry associated therewith, which influence can be detected by the corresponding detector 18. Thus, the embodiments shown in each of Figs. 1A, 1C and 2A of the Saini patent have a single light detector for detecting light that has been influenced by sensing chemistry associated with a single sensing arm, not the optical waveguide of claim 17 that has a single light path along which multiple

detection fields and multiple radiation receivers are disposed, wherein each detection field has one radiation receiver associated therewith and each radiation receiver is operative for detecting only the luminescence radiation sent out by the detection field associated therewith.

Figs. 3A-3C of the Saini patent disclose a sensor 58 comprised of a reference channel 66 (that does not have sensing chemistry associated therewith), including a light source 68, and three different waveguides 60, 62 and 64 (defining three separate light paths), having different sensing chemistry 30a, 30b and 30c, and including detectors 70, 72 and 74, respectively, associated therewith. Thus, each waveguide that includes sensing chemistry in Figs. 3A-3C of the Saini patent has only one detector associated therewith. Thus, the embodiment shown in Figs. 3A-3C of the Saini patent does not disclose the optical waveguide of claim 17 that has a single light path along which multiple detection fields and multiple radiation receivers are disposed, wherein each detection field has one radiation receiver associated therewith and each radiation receiver is operative for detecting only the luminescence radiation sent out by the detection field associated therewith.

In the second full paragraph on page 7 of the Office Action (Response to Arguments), the Examiner argues that the Saini patent discloses in Fig. 1C “. . . a waveguide sensor comprising an entire waveguide (25) that is made of sensing chemistry, which includes multiple detection fields of bonding between receptors and ligands.” (underline added). Column 2, lines 44-50 of the Saini patent disclose that the entirety of sensing arm 25 is made of sensing chemistry. To this end, the cross-hatching used with sensing arm 25 in Fig. 1C of the Saini patent denotes, in a manner consistent with the other Figs. in the Saini patent, where sensing chemistry resides. This cross-hatching, however, does not denote multiple detection fields as alleged by the Examiner. Accordingly, Fig. 1C of the Saini patent discloses one, elongated detection field 25 having one detector 18 associated therewith, not the optical waveguide of claim 17 that has a single light path along which multiple detection fields and multiple radiation receivers are disposed, wherein each detection field has one radiation receiver associated therewith and each radiation receiver is operative for detecting only the luminescence radiation sent out by the detection field associated therewith.

As can be seen, the Saini patent does not disclose, teach or suggest an optical waveguide having all the limitations of claim 17. Accordingly, the Saini patent cannot anticipate or render obvious claim 17, or claims 18-36 dependent therefrom. The Budach et al. and Haronian et al. patents do not cure the deficiencies in the teachings of the Saini patent.

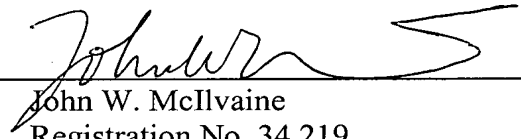
CONCLUSION

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of claims 17-36 are requested.

Respectfully submitted,

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